

## **BACKGROUND OF THE INVENTION**

Disposable bibs are well known in the art. Such bibs may be provided for use on babies during feeding, often for adults in the health care industry, for restaurants to keep customers' clothes from becoming soiled among many other applications.

The present invention is related to disposable bibs, and more particularly, to a inexpensive bib having a unique, strong, always open pocket structure for receiving and supporting liquid and solid materials, in addition to quick and safe removal. The present invention provides for adult applications only.

The prior art also discloses bibs having a pocket structure for receiving solids or liquids that would otherwise dirty the wearer's clothing. One main problem with known bibs is that pocket structures may be ineffective in capturing, supporting, nor maintaining an open configuration of spilled food, liquid or other materials, particularly if crushed during storage, shipment or accidentally crushed by the user. Other major concerns include; The high cost to manufacture, the subsequent cost to the user, and a provision for quick, simple and safe removal of the bib for safety purposes; \*No known examples provide for low cost nor quick and safe removal.

An example of a disposable bib having a pocket structure for receiving solids or liquids is disclosed in U.S. Pat. No. 6,381,751 issued May 7, 2002 to Benjamin, et al. Benjamin, et al states; The bib body comprises a first body panel, a second pocket panel, and a third panel. In order to provide a sustained pocket space, a flexible member is joined to the third panel proximate the second end and extends laterally between the longitudinally extending side edges of the third panel. The third panel and the flexible member are constructed and arranged such that, as the third panel is folded or deflected into the pocket space from a first position, having an inside surface facing an outer surface of the body panel to a second position, having the inside surface of the third panel facing an inside surface of the pocket panel, the third panel provides an opening of the pocket space along the longitudinal centerline of the bib. The flexible member is more rigid

than the third panel and provides a durable pocket opening that is maintained during use. However, the flexible member that is presumed to be maintained during use, does not account for potential during shipment, nor states to any certainty that it would regain its shape if crushed closed against something by a wearer crushing during use, making the pocket no longer effective for its intended use.

Another example of a disposable bib having a pocket structure for receiving solids or liquids is disclosed in U.S. Pat. No. 6,128,780 issued Oct. 10, 2000 to Reinhart, et al. Reinhart et al. provides a bib having a body comprising a first, second, and a third panel. Disposition of the third panel between the pocket panel and the body panel serves to space at least a portion of the pocket panel from an underlying portion of the body panel to provide opening of the pocket space along the longitudinal centerline of the bib. However, the opening of the pocket will be crushed closed against something by a wearer crushing during use, again, making the pocket no longer open, or effective during use.

Another example of a potentially open pocket is U.S. Pat. No. 4,445,231 issued May 1, 1984 to Noel. Noel discloses a bib having a gravitationally open able pocket. Although the premise is sound, the result of the actual use depends upon the users awareness, and actual position, making the pocket potentially ineffective during use.

Other prominent references disclosing bibs with various structures for catching articles include U.S. Pat. No. 497340 issued May 1893 to Pollitt; U.S. Pat. No. 615293 issued December 1898 to Maier; U.S. Pat. No. 2164369 issued July 1939 to Woolever; U.S. Pat. No. 2651039 issued September 1953 to Tonkens et al.; U.S. Pat. No. 4445231 issued May, 1984 to Noel; U.S. Pat. No. 4601065 issued July 1986 to Sigl et al.; U.S. Pat. No. 4622698 issued Nov., 1986 to Heyman et al.; U.S. Pat. No. 4649572 issued March, 1987 to Roessler; U.S. Pat. No. 4702523 issued Oct. 1987 to Schrader et al.; U.S. Pat. Nos. 3,010,111 to Ralph; 3,945,048 to Shearer; 4,261,057 to Andersson; U.S. Pat. No. 5504941 issued April 1996 to Sell; 4,649,572 issued March, 1997 to Roessler; 4,706,303 to VanGompel; U.S. Pat. No. 5875490 issued March 1999 to

Woodard et al.; U.S. Pat. No. 5918311 issued July, 1999 to Lampson et al.; 6,363,530 B1 issued April, 2002 to Lampson et al.; U.S. Pat. No. 6,536,048 issued March 2003 to Frye;

### **BRIEF SUMMARY OF THE INVENTION**

The present invention provides an inexpensive bib compromised of five distinct parts; A body panel folded and heat-sealed at one end to create a slightly tapered pocket, and at the opposite end, a tapered upper portion; An insert that is folded in half, inserted in the pocket, permanently heat-sealed, creating a unique, always open, strong pocket with reliable memory spring open tensile, strong enough to support and contain virtually all spilled food and/or fluids; A simple adjustable neck strap with a breakaway perforation for safety and easy removal, permanently heat-sealed on one end of the upper tapered body panel while the other end of the strap is secured with; A double-sided reusable tape to the other end of the tapered body panel; In addition a tab which is permanently attached by heat sealing to the outside bottom of the bib pocket designed for the purpose of dispensing.

It is an object of the present invention to provide a disposable bib with a unique pocket structure which always springs open because of the fold of said insert which creates consistent tensile opening memory that it is reliable, even if crushed during storage, shipment or inadvertently crushed by the user.

Another object of the present invention is to provide a disposable bib having a strong pocket structure for receiving and supporting all spilled food and liquid material, with sufficient strength.

Another object of the present invention is to provide a simple, strong adjustable neck strap with a breakaway perforation for safe use and easy removal.

Another object of the present invention is to provide a tab attached to the outside bottom of the bib pocket, designed for the purpose of dispensing.

Particularly, there is a need for a disposable bib that is inexpensive, simple to apply, use and remove for safety reasons, including a reliable strong pocket that is always maintained in an open configuration for receiving, containing and supporting virtually all spilled solid and liquid food materials, even if crushed during storage, shipment or accidentally crushed by the user.

### **BRIEF DISCRIPTION OF THE DRAWINGS**

Fig. 1 is a perspective overview of the bib in its entirety.

Fig. 2 is a detailed front view of the bib consisting of 5 pieces. The neck strap, the main body of the bib with a folded 4-inch pocket, the pocket insert, the two-sided adhesive, and the dispensing tab. .

Fig. 2-1 is the main body of the bib with a folded 4-inch pocket (polyethylene or like material) of the bib.

Fig. 2-2 is the insert (polypropylene or like material) which is folded in half and is inserted and permanently heat-sealed inside the bib pocket which creates a tensile opening spring back memory that creates the self-opening pocket to catch and/or store food & fluids.

Fig. 2-3 is an neck strap (polyethylene or like material) which is permanently heat-sealed (Fig. 2-4) at one end to the bib.

Fig. 2-5 is a breakaway perforation point for safety and removal.

Fig. 2-6 is a two-sided peel away adhesive located at the top right corner of the bib, that the neck strap will adhere to when applied, and is re-attachable.

Fig. 2-7 is a tab (Polyethylene or like material), which is permanently heat-sealed to the bottom of the bib designed for dispensing.

Fig. 3 is a rearview of the bib.

Fig. 3-1 is a breakaway perforation point for safety and removal.

Fig. 3-2 is the connection of the neck strap that is permanently heat-sealed at one end to the bib.

Fig. 3-3 is a tab which is permanently heat-sealed to the bottom of the bib designed for the purpose of dispensing.

Fig. 4 is a integral close-up views of the neck strap and the dispensing tab.

Fig. 4-1 is the close view of the breakaway perforation point for safety and removal.

Fig. 4-2 is the connection of the permanently heat-sealed side of the neck strap which is attached at the top left side to the bib.

Fig. 4-3 is close-up view of the peel away cover of the adhesive located at the top right corner of the bib.

Fig. 4-4 is a close-up view of permanently attached adhesive located at the top right corner of the bib, that the neck strap will adhere to when applied, and is re-attachable.

Fig. 4-5 is a tab which is permanently heat-sealed to the bottom of the bib designed for the purpose of dispensing.

Fig. 5 is a front view of the bib, assembled and in its entirety.

### **DETAILED DESCRIPTION OF THE DRAWINGS**

Fig. 1 is a perspective overview of the bib in its entirety.

Fig. 2 is a detailed front view of the bib consisting of 5 pieces. The neck strap, the main body of the bib with a folded 4-inch pocket, the pocket insert, the two-sided adhesive, and the dispensing tab. The single plastic sheet body member composed of a substantially liquid impermeable polyethylene or like material (25 microns), 17 inches in length longitudinally, and 14-inches laterally including a single folded end member longitudinally of 4-inches, which extends transversely there across and is heat-sealed along the outermost longitudinal edges to create a 4-inch deep pocket end bottom portion tapered longitudinally, along the 4-inch deep pocket end portion that holds a pocket insert that is also tapered longitudinally along the top 5 inches extending side edges to create free arm movement for the user.

Fig. 2-1 is the main body of the bib with a folded 4-inch pocket (polyethylene or like material) of the bib. In its folded state, the pocket measures 14-inches across laterally at its top most point and 12.5 inches across laterally at its top bottom most point.

Fig. 2-2 is the insert (polypropylene or like material) shown partially inserted into the main bib body pocket, and is folded in half, inserted and permanently heat-sealed inside creating a tensile opening spring back

memory due to the specific tension of the fold in the polypropylene material and its specific thickness of 250 microns. The reaction of that fold creates the self-opening pocket along with the assistance of the insert being slightly .01 inches wider laterally, than the pocket to catch and/or store food & fluids. In its folded state, the pocket insert measures 14.1 inches across laterally at its top most point, and 12.5 inches across laterally at its top bottom most point.

Fig. 2-3 is an neck strap (polyethylene or like material) which is permanently heat-sealed (Fig. 2-4) at one end to the bib and measures 22 inches longitudinally, 1 inch laterally and is 25 microns In thickness.

Fig. 2-5 is a breakaway perforation point for safety and removal and measures 1 inch longitudinally across the neck strap base and is located 1.5 inches above the permanently attached side of the neck strap. The actual perforation density is crucial to the balance of strength versus ability to separate, and is proprietary in nature.

Fig. 2-6 is a two-sided peel away adhesive located at the top right corner of the bib, that the neck strap will adhere to when applied, and is re-attachable.

Fig. 2-7 is a tab (Polyethylene or like material) that is permanently heat-sealed to the bottom of the bib longitudinally and laterally, designed for the purpose of dispensing.

Fig. 3 is a rearview of the bib in its entirety.

Fig. 3-1 is the breakaway perforation point for safety and removal seen from a rear view off the bib, and measures 1 inch longitudinally across the neck strap base and is located 1.5 inches above the permanently attached side of the neck strap. The actual perforation density is crucial to the balance of strength versus ability to separate, and is proprietary in nature.

Fig. 3-2 is the connection of the permanently heat-sealed side of the neck strap seen from a rear view off the bib, which is attached at the top left side to the bib by heat sealing.

Fig. 3-3 is a tab which is permanently heat-sealed to the bottom center of the bib, laterally, designed for the ability to pull from a of dispenser.

Fig. 4 is a integral close-up views of the neck strap and the dispensing tab.

Fig. 4-1 is the close view of the breakaway perforation point for safety and removal. and measures 1 inch longitudinally across the neck strap base and is located 1.5 inches above the permanently attached side of the neck strap. The actual perforation density is crucial to the balance of strength versus ability to separate, and is proprietary in nature.

Fig. 4-2 is the connection of the permanently heat-sealed side of the neck strap which is attached at the top left side to the bib by heat sealing.

Fig. 4-3 is close-up view of the peel away cover of the adhesive, longitudinally located at the top right corner of the bib.

Fig. 4-4 is a close-up view of permanently attached adhesive, longitudinally located at the top right corner of the bib, leaving one side of the two-sided tape cover on until the user removes it to apply the neck strap, and is re-attachable for the purpose of readjusting the strap to the users size.

Fig. 4-5 is a tab which is permanently heat-sealed to the bottom center of the bib, laterally, designed for the ability to pull from a dispenser.